

Title (en)

USE OF IMMISCIBLE FLUIDS IN DROPLET EJECTION THROUGH APPLICATION OF FOCUSED ACOUSTIC ENERGY

Title (de)

VERWENDUNG VON UNMISCHBAREN FLUIDEN BEI TRÖPFCHENAUSSTOSS DURCH ZUFÜHRUNG VON FOKUSSierter SCHALLENERGIE

Title (fr)

UTILISATION DE FLUIDES IMMISCIBLES PERMETTANT L'EJECTION DE GOUTTELETTES PAR APPLICATION D'ENERGIE ACOUSTIQUE FOCALISEE

Publication

EP 1494809 A4 20101103 (EN)

Application

EP 03726135 A 20030328

Priority

- US 0309490 W 20030328
- US 11269302 A 20020328

Abstract (en)

[origin: US2002155231A1] The invention provides a method for generating droplets. Extremely fine droplets may be generated (on the order of 1 picoliter or less) using focused acoustic energy to eject the droplets from a reservoir containing two or more immiscible fluids. The droplets may include immiscible fluids or a single fluid. Typically, the droplets are ejected onto discrete sites on a substrate surface so as to form an array thereon. In some instances, the reservoirs contain layers of immiscible fluids, wherein an upper layer exhibits a nonuniform thickness. In such a case, fluid from a lower fluid layer may be propelled through an aperture region of the upper layer.

IPC 1-7

B01L 3/02; **B41J 2/04**

IPC 8 full level

B05B 17/04 (2006.01); **B01J 13/04** (2006.01); **B01J 19/00** (2006.01); **B01J 19/10** (2006.01); **B01L 3/02** (2006.01); **B05B 17/06** (2006.01); **B22F 9/08** (2006.01); **B41J 2/04** (2006.01); **B41J 2/14** (2006.01); **C40B 40/06** (2006.01); **C40B 40/10** (2006.01); **C40B 60/14** (2006.01)

IPC 8 main group level

B41J (2006.01)

CPC (source: EP US)

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C-Set (source: EP US)

B22F 2999/00 + **B22F 9/08** + **B22F 2202/01**

Citation (search report)

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- [A] US 6116718 A 20000912 - PEETERS ERIC [US], et al
- [A] EP 0400955 A2 19901205 - XEROX CORP [US]
- [A] US 6029518 A 20000229 - OEFTERING RICHARD C [US]
- See references of WO 03082577A2

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DOCDB simple family (application)

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